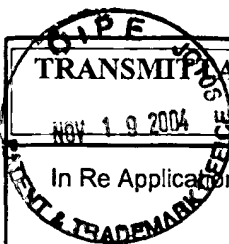


IFW

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT (Under 37 CFR 1.97(b) or 1.97(c))			Docket No. CMD-006
In Re Application Of: Matthew David Tarler			
Serial No. 10/622,751	Filing Date 7/18/2003	Examiner Alandra Ellington	Group Art Unit 2855
Title:  Sensor For Measuring Shear Forces			
Address to: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450			
37 CFR 1.97(b)			
1. <input type="checkbox"/> The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.			
37 CFR 1.97(c)			
2. <input checked="" type="checkbox"/> The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:			
<input type="checkbox"/> the statement specified in 37 CFR 1.97(e);			
OR			
<input checked="" type="checkbox"/> the fee set forth in 37 CFR 1.17(p).			



**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT**  
(Under 37 CFR 1.97(b) or 1.97(c))

Docket No.  
**CMD-006**

In Re Application: **Matthew David Tarler**

Serial No.  
**10/622,751**

Filing Date  
**7/18/2003**

Examiner  
**Alandra Ellington**

Group Art Unit  
**2855**

Sensor For Measuring Shear Forces

**Payment of Fee**

(Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p))

- ☐ A check in the amount of \_\_\_\_\_ is attached.
- ☒ The Director is hereby authorized to charge and credit Deposit Account No. **502204** as described below.
- ☒ Charge the amount of \_\_\_\_\_
- ☒ Credit any overpayment.
- ☐ Charge any additional fee required.

**Certificate of Transmission by Facsimile\***

I certify that this document and authorization to charge deposit account is being facsimile transmitted to the United States Patent and Trademark Office (F:

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Typed or Printed Name of Person Signing Certificate

**Certificate of Mailing by First Class Mail**

I certify that this document and fee is being deposited on **11/16/2004** with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

  
Signature of Person Mailing Correspondence

**Seth Weis**

\_\_\_\_\_  
Typed or Printed Name of Person Mailing Certificate

\*This certificate may only be used if paying by deposit account.

  
Signature

Dated: **11/16/2004**

cc:



Practitioner's Docket No. CMD-006

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent application

of Matthew David Tarler

Inventor(s)

for Sensor For Measuring Shear Forces

Title of invention

the specification of which is being transmitted herewith

OR

In re application of:

Serial No.: 0 10 / 622,751

Group No.:

Filed: 7/18/2003

Examiner: Alandra Ellington

For:

Assistant Commissioner for Patents  
Washington, D.C. 20231

**INFORMATION DISCLOSURE STATEMENT**

**CERTIFICATION UNDER 37 C.F.R. 1.8(a) and 1.10\***

*(When using Express Mail, the Express Mail label number is mandatory;  
Express Mail certification is optional.)*

I hereby certify that, on the date shown below, this correspondence is being:

**MAILING**

☒ deposited with the United States Postal Service in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231

37 C.F.R. 1.8(a)

☒ with sufficient postage as first class mail.

37 C.F.R. 1.10\*

☐ as "Express Mail Post Office to Addressee"

Mailing Label No. \_\_\_\_\_ (mandatory.)

**TRANSMISSION**

☐ transmitted by facsimile to the Patent and Trademark Office.

Signature

Date: \_\_\_\_\_

(type or print name of person certifying)

**\*WARNING:** Each paper or fee filed by Express Mail **must** have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will **not** be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

(Information Disclosure Statement [6-1]—page 1 of 8)

NOTE: "An information disclosure statement shall be considered by the Office if filed by the applicant:

- (1) Within three months of the filing date of a national application;
  - (2) Within three months of the date of entry of the national stage as set forth in § 1.491 in an international application; or
  - (3) Before the mailing date of a first Office action on the merits, whichever event occurs last."
- 37 C.F.R. 1.97(b).

NOTE: "Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section." 37 C.F.R. 1.56(a).

"Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) each inventor named in the application;
- (2) each attorney or agent who prepares or prosecutes the application; and
- (3) every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application." 37 C.F.R. 1.56(c).

NOTE: The "duty as described in § 1.56 will be met so long as the information in question was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b) - (d) and 1.98 before issuance of the patent." Notice of January 9, 1992, 1135 O.G. 13 -25 at 17.

WARNING: "No information disclosure statement may be filed in a provisional application." 37 C.F.R. § 1.51(b).

### List of Sections Forming Part of This Information Disclosure Statement

The following sections are being submitted for this Information Disclosure Statement:

(check sections forming a part of this statement: discard unused sections  
and number pages consecutively)

1. ☒ Preliminary Statements
2. ☒ FORMS PTO/SB/08A and 08B (formerly FORM PTO-1449)
3. ☐ Statement as to Information Not Found in Patents or Publications
4. ☐ Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted
5. ☐ Cumulative Patents or Publications
6. ☒ Copies of Listed Information Items Accompanying This Statement
7. ☐ Concise Explanation of Non-English Language Listed Information Items
  - 7A. ☐ EPO Search Report
  - 7B. ☐ English Language Version of EPO Search Report
8. ☐ Translation(s) of Non-English Language Documents
9. ☐ Concise Explanation of English Language Listed Information Items (Optional)
10. ☒ Identification of Person(s) Making This Information Disclosure Statement

(complete the following, if appropriate)

Sections \_\_\_\_\_, respectively, have been continued on ADDED PAGE(S).

NOTE: "Once the minimum requirements are met, the examiner has an obligation to consider the information." Notice of April 20, 1992 (1138 O.G. 37-41, 37).

## **Section 1. Preliminary statements**

Applicants submit herewith patents, publications or other information, of which they are aware that they believe may be material to the examination of this application, and in respect of which, there may be a duty to disclose.

The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 C.F.R. 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists.

The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.

## Section 2. Forms PTO/SB/08A and 08B (formerly Form PTO-1449)

NOTE: With respect to the list required by paragraph (b) of 37 C.F.R. 1.98, the Notice of April 20, 1992 (1138 O.G. 37-41) points out that:

*"The list may not be incorporated into the specification but must be submitted in a separate paper. A separate list is required so that it is easy to confirm that applicant intends to submit an information disclosure statement, and because it provides a readily available checklist for the examiner to indicate which identified documents have been considered. A copy of a separate list will also provide a simple means of communication to applicant to indicate the listed documents that have been considered and those listed documents that have not been considered. Use of form PTO-1449, 'Information Disclosure Citation, is encouraged."*

NOTE: "An information disclosure statement may include two list[s] (and two certifications)) . . . in situations where some of the information listed was cited in a communication from a foreign patent office not more than three months prior to filing the statement and some was not, but was not known more than three months prior to filing the statement." Notice of April 20, 1992 (1138 O.G. 37-41, 40).

NOTE: With respect to the examiner's consideration of the Information Disclosure Statement, the Notice of April 20, 1992 (1138 O.G. 37-41) states:

*"If information is listed in the specification rather than in a separate paper, or if the other content requirements \*\*\* are not complied with, the examiner will notify applicant in the next Office action that the information has not been considered. It should be noted, however, that no copy of a U.S. patent application is required to be submitted. \*\*\* Where a U.S. patent application is properly cited, the examiner should obtain access to that file within the Office.*

*"Examiners must consider all citations submitted in conformance with the rules and this section and place their initials adjacent [sic] the citations on a list or in the boxes provided on a form PTO-1449. If the citations are submitted on a list other than a form PTO-1449, the examiner may write 'all considered' and his or her initials to indicate that all citations have been considered. If any of the citations are considered, a copy of the submitted list or form, as reviewed by the examiner, will be returned to the applicant with the next communication. The original copy of the form will be entered into the application file. The copy returned to applicant will serve both as acknowledgement of receipt of the information disclosure statement and as an indication that the references were considered by the examiner. Forms PTO-326 and PTOL-37 include a box to indicate the attachment of form PTO-1449.*

*"Information which complies with requirements as discussed in this section but which is in a non-English language will be considered in view of the concise explanation submitted \*\*\* and insofar as it is understood on its face, e.g., drawings, chemical formulas, in the same manner that non-English language information in Office search files is considered by examiners in conducting searches. The examiner need not have the information translated unless it appears to be necessary to do so. \*\*\* The examiner should not require that a translation be filed by applicant. The examiner should not make any comment such as that the non-English language information has only been considered to the extent understood, since this fact is inherent.*

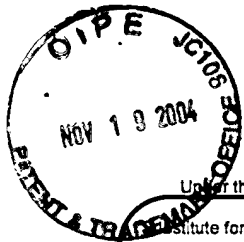
*"Since information is required to be listed in a separate paper rather than in the specification, there is no need to mark 'All checked' or 'Checked' in the margin of a specification containing citations.*

*"If a statement fails to comply with the requirements as discussed in this section for an item of information, a line should be drawn through the citation to show that it has not been considered. The other items of information listed that do comply with the rules and this section will be considered by the examiner and will be appropriately initialed.*

\* \* \* \* \*

*"A citation listed on form PTO-1449 and considered by the examiner in accordance with this section will be printed on the patent. A citation listed in a separate paper, equivalent to but not on form PTO-1449, and considered by the examiner in accordance with this section will be printed on the patent if the list is on a separate sheet which is clearly identified as an information disclosure statement and the list lends itself to easy capture of the necessary information by the Office printing contractor, i.e., each item of information is listed on a single line, the lines are at least double-spaced from each other, the information is uniform in format for each listed item, the list includes a column for the examiner's initials to indicate that the information was considered. If a citation is not printed on the patent but has been considered by the examiner in accordance with this section, the patented file will reflect that fact . . . "*





Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/622,751
Filing Date	07/18/2003
First Named Inventor	Tarler
Art Unit	2855
Examiner Name	Alandra Ellington
Attorney Docket Number	CMD-006

Sheet 1 of 1

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		DAISUKE YAMADA et al. Design of Artificial Finger Skin Having Ridges and Distributed Tactile Sensors, Proceedings of the 32nd ISR, 19-21 April 2001, pp. 1243-1248.	✓
		DAISUKE YAMADA et al. Artificial Finger Skin Having Ridges and Distributed Tactile Sensors used for Grasp Force Control, Proceedings of the IROS 2001.	✓
		DAISUKE YAMADA et al. Artificial Finger Skin Having Ridges and Distributed Tactile Sensors used for Grasp Force Journal of Robotics and Mechatronics, Vol. 14, No.2, 2002.4, pp. 140-146.	✓
		STEPHEN A. MASCARO et al. Measurement of Finger Posture and Three-Axis Fingertip Touch Force Using Fingernail Sensors, Submitted to IEEE Transactions on Robotics and Automation, 2002.	✓
		TAKASHI MAENO et al. Analysis and Design of a Tactile Sensor Detecting Strain Distribution Inside an Elastic Finger, <a href="http://www.maeno.mech.keio.ac.jp/English/maeno_IROS98.pdf">http://www.maeno.mech.keio.ac.jp/English/maeno_IROS98.pdf</a>	✓
		STEPHEN A. MASCARO et al. Finger Posture and Shear Force Measurement using Fingernail Sensors: Initial Experimentation, Proceedings of the IEEE International Conference on Robotics and Automation, Vol. 2, pp. 1857-1862, 2001.	✓
		ROBERT D. HOWE et al. Dynamic Tactile Sensing: Perception of Fine Surface Features with Stress Rate Sensing, IEEE Transactions on Robotics and Automation, Vol. 9, No.2, April 1994	✓
		W. B. CARLSON et al. Flexi-Distortional Piezoelectric Sensor Results, <a href="http://design.alfred.edu/Piezoensegrity/PlateDistortSensors3.html">http://design.alfred.edu/Piezoensegrity/PlateDistortSensors3.html</a> , March 2003.	✓
		D. J. BEEBE et al. A Silicon Force Sensor for Robotics and Medicine, Sensors and Actuators A: Physical, Vol.50, Issues 1-2, August 1995, pp. 55-65.	✓
		J. L. NOVAK. Initial Design and Analysis of a Capacitive Sensor for Shear and Normal Force Measurement, IEEE, 1989, pp. 137-144.	✓

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.





## Section 6. Copies of Listed Information Items Accompanying This Statement

NOTE: 37 C.F.R. 1.98(a)(2) requires that any information disclosure statement filed under § 1.97 shall include: "A legible copy of: (i) Each U.S. and foreign patent; (ii) Each publication or that portion which caused it to be listed; and (iii) All other information or that portion which caused it to be listed, except that no copy of a U.S. patent application need be included . . ."

NOTE: The wording in § 1.98(a)(2)(iii) makes it clear that the requirement to submit a copy of each item of information listed in an information disclosure statement does not apply to the citation of a U.S. patent application. Notice of January 9, 1992, 1135 O.G. 13-25, at 14.

Legible copies of all items listed in Forms PTO/SB/08A and 08B (formerly Form PTO-1449) accompany this information statement.

*(complete the following, if applicable)*

- ☐ Exception(s) to above:
- ☐ Items in prior application, from which an earlier filing date is claimed for this application, as identified in Section 4.
  - ☐ Cumulative patents or publications identified in Section 5.



**Section 10. Identification of Person(s) Making This Information Disclosure Statement**

The person making this statement is

*(check each applicable item)*

- (a) ☐ the inventor(s) who signs below

\_\_\_\_\_  
SIGNATURE OF INVENTOR

\_\_\_\_\_  
*(type name of inventor who is signing)*

- (b) ☐ an individual associated with the filing and prosecution of this application (37 C.F.R. 1.56(c))

\_\_\_\_\_  
SIGNATURE OF INVENTOR

\_\_\_\_\_  
*(type name of inventor who is signing)*

- (c) ☒ the practitioner who signs below on the basis of the information:

*(check each applicable item)*

- ☒ supplied by the inventor(s).  
☐ supplied by an individual associated with the filing and prosecution of this application. (37 C.F.R. 1.56(c))  
☐ in the practitioner's file.

  
SIGNATURE OF PRACTITIONER

Brian M. Kolkowski

\_\_\_\_\_  
*(type or print name of practitioner)*

4415 Euclid Ave, Suite 500

\_\_\_\_\_  
P.O. Address

Cleveland, OH 44103  
\_\_\_\_\_

Reg. No.: 36,847

Tel. No.: (216) 649-0376

Customer No.: